



## Environmentally Preferable Purchasing Guide

# Greening Your Purchase of Food Serviceware

Food serviceware holds such diverse food items as salad “by the pound,” hamburgers and chicken sandwiches, and coffee to go. Food service packaging serves many purposes, including sanitation, portability, insulation, and protection. As a result, it is a part of everyday life. Because food packaging is so ubiquitous, its use has become a serious concern to the environmental community.

Efforts to reduce the environmental impacts of food packaging have primarily focused on recycling and source reduction (i.e., reducing the amount and/or toxicity of materials used in products). Even with these efforts, however, most food packaging waste still ends up in landfills. Although the overall volume may seem small, food packaging’s highly visible presence in all areas of society (e.g., restaurants, “fast food” drive-thru windows, take-out delis, grocery store food bars, shopping mall food courts) also increases the potential for improper disposal (EPA, 1997).

## Why Green Your Food Serviceware?

- Nearly 113 billion disposable cups, 39 billion disposable eating utensils, and 29 billion disposable plates are used in the United States each year (The Green Culture, 1999).
- In 1996, almost 1.8 million tons of quick-serve food packaging were thrown away in the United States. This translates into:
  - An estimated 810,000 tons of plastic plates and cups, composed primarily of polystyrene resin, (EPA, 1997).
  - An estimated 950,000 tons of paper plates, cups, bowls, and other food service products.
  - 132,743 garbage trucks, which, if lined up bumper-to-bumper, would stretch from Philadelphia to Chicago (Green Seal, 1999).



### What’s Inside:

- What Can You Do?
- Success Stories
- Contacts & Resources

Produced by EPA’s Environmentally Preferable Purchasing (EPP) Program, this is one in a series of purchasing guides aimed at helping procurement officials identify and purchase “greener” products and services. Check out all our EPP tools and resources at [www.epa.gov/oppt/epp](http://www.epa.gov/oppt/epp).



# What Can You Do?

When logistically and economically feasible, purchasing reusable trays, plates, cups, and flatware is the most environmentally preferable option. Studies have shown this to be true even when considering the energy used to manufacture reusables and the water and soaps used to wash them (North Carolina Department of Environment and Natural Resources, October 1999). Reusables work best in a sit-down, eat-in setting, and dramatically reduce solid waste generation; however, many consumers want to take their food away with them. This is when disposable food serviceware and packaging often enters the picture. When the use of disposables is deemed necessary, the additional recommendations below will help you minimize the environmental impacts associated with one-time-use food packaging and serviceware. You also can limit waste disposal by encouraging people to bring their own cups and plates, perhaps by offering customers a discount for their effort.

## Pick products that easily biodegrade in the environment

Several companies now offer environmentally preferable alternatives, including packaging that uses less total energy and generates low greenhouse gas emissions when compared to traditional packaging. These products still can be strong and provide good insulation. Products made primarily from abundant and naturally renewable resources and using energy-efficient manufacturing processes also are available.

Look for products that are biodegradable and are compostable. Food service items often can't be recycled into new products due to local health codes or industry practice; therefore, the ideal situation when non-reusable products must be used is to use compostable products and then actually compost them. If composting isn't an option, then the products should be properly disposed of. If there is a chance that the products may not be

properly disposed of, then picking food packaging that is biodegradable can still reduce the negative impacts of littering.

## If the above options are not feasible, consider these other environmentally preferable practices...

- **Purchase packaging that has a better overall environmental profile.**

Get information about the food service packaging that you are considering. Can the company provide environmental information about its products through their life cycle—from resource extraction to manufacture to use to disposal? Consider the factors on the next page when weighing the options. This is the essence of EPP.

## Five Guiding Principles

To help government purchasers incorporate environmental considerations into purchasing decisions, EPA developed five guiding principles. The guiding principles provide a framework purchasers can use to make environmentally preferable purchases. The five principles are:

1. Include environmental considerations as part of the normal purchasing process.
2. Emphasize pollution prevention early in the purchasing process.
3. Examine multiple environmental attributes throughout a product's or service's life cycle.
4. Compare relevant environmental impacts when selecting products and services.
5. Collect and base purchasing decisions on accurate and meaningful information about environmental performance.

For more information, go to the five guiding principles on EPA's EPP Web site at [www.epa.gov/oppt/epp/fivegp.htm](http://www.epa.gov/oppt/epp/fivegp.htm).

- **Select non-rigid packaging whenever suitable for your service needs.**

Non-rigid packaging (e.g. paper or foil wrap) is typically lighter in weight, uses fewer material resources than rigid clamshells or containers with lids, and occupies less landfill space.

- **Use packaging made from a renewable resource.**

Wherever possible, avoid quick-serve food packaging made from non-renewable, petroleum-derived plastic. While a few types of plastic are currently being widely recycled, this applies almost exclusively to beverage containers rather than food containers, and the recycled plastic material is rarely used in new food packaging products. Packaging products made from wood fiber or other crop-derived materials can incorporate recycled content and are therefore considered more sustainable.



- **Buy recycled and/or unbleached fiber content.**

If possible, select food service packaging that contains recycled content, preferably postconsumer recycled content. Additionally, seek unbleached fiber containers, or fiber containers bleached with chlorine alternatives, such as hydrogen peroxide or ozone. These options are preferable to containers that contain fiber bleached with chlorine or chlorine derivatives.

However, if combinations of these attributes are difficult to find, Green Seal recommends products that

have either recycled content or unbleached fiber content.

- **Use the minimum weight within food packaging type.**

Whether paper or composite food packaging is selected, choose the lightest-weight product that will meet your performance needs. Lighter weight usually means fewer materials and less environmental impact.

## EPA's Purchasing Tool Suite

EPA's EPP Program has developed the following Web-based tools to help purchasers consider the environment, along with price and performance, when buying a product or service.

**Database of Environmental Information for Products and Services** — A searchable database of product-specific information (e.g., environmental standards and guidelines or contract language) developed by government programs, both domestic and international, as well as third parties.

[www.epa.gov/oppt/epp/database.htm](http://www.epa.gov/oppt/epp/database.htm)

**Promising Practices Guide for 'Greener' Contracts** — A series of short case studies highlighting successful strate-

gies for incorporating environmental factors into a variety of product and service contracts.

[www.epa.gov/oppt/epp/ppg](http://www.epa.gov/oppt/epp/ppg)

**General EPP Training Tool** — Covers basic EPP principles and mandates, along with some more in-depth applications of EPP, in an entertaining and multimedia format.

[www.epa.gov/oppt/epp/gent/](http://www.epa.gov/oppt/epp/gent/)

**Tips for Buying Green with the Government Credit Card** — Tips to help government credit card holders make greener choices when buying products, such as cleaning products.

[www.epa.gov/oppt/epp/creditcard.htm](http://www.epa.gov/oppt/epp/creditcard.htm)

# Success Stories

## Department of Interior

The waste stream generated during the provision of food and beverages had long been a concern at the U.S. Department of Interior (DOI). Although employees used reusable trays, plates, and flatware, there had been no environmental alternative to take-out containers. Polystyrene products were chosen for use when officials learned that a polystyrene recycling program could be implemented along with the use of the material. But, when DOI determined that the material was not being recycled but was being disposed of, it set out to find a greener option. It was then that DOI located a company that manufactured disposable cafeteria-ware products made from limestone and potato, corn, or rice starch. These products were biodegradable and compostable and required less energy to manufacture than comparable paper or polystyrene containers. For a description of this project see: <[www.epa.gov/oppt/epp/ppg/](http://www.epa.gov/oppt/epp/ppg/)>. A description of a DOI/U.S. Department of Agriculture composting pilot study performed on the packaging and food materials collected at DOI can be found in the March 2001 issue of *Biocycle* at <[www.jgpress.com/BCArticles/2001/030180B.html](http://www.jgpress.com/BCArticles/2001/030180B.html)>.

## EPA at Research Triangle Park

The Environmental Protection Agency (EPA) at Research Triangle Park in Raleigh, North Carolina, recently constructed a new lab facility, which has won numerous awards for its green building commitments. Among its innovations was a food service contract, which used the following language:

*"All paper products provided by the contractor shall be from 100 percent recycled materials which can be composted. The contractor shall recycle all glass, aluminum, plastic, and metal containers used in food preparation. In an effort to reduce paper waste, the contractor shall provide a monetary savings incentive for any employee who uses their personal coffee cup. Also, the contractor shall provide for purchase of reusable mugs for participation in the discount rate. This program shall be advertised via appropriate signage. The contractor shall provide a plan to the Project Officer for the recycling of food waste within fifteen (15) calendar days of the contract award, for approval by the Project Officer. This plan shall include the waste created during food preparation and collected from returned serving trays. The plan will be approved or disapproved by the Project Officer within seven (7) calendar days. If the plan is disapproved, the contractor shall submit a revised plan within ten (10) calendar days of disapproval notice."*

### It's Policy

The federal government has undertaken various initiatives to mandate the consideration of the environment in purchasing decisions. A growing number of state and local governments also have implemented green purchasing policies or programs. In 1995, EPA established the Environmentally Preferable Purchasing (EPP) Program to encourage federal employees to consider a broad range of environmental factors, such as reduced toxicity and lower volatile organic compound (VOC) content, in their purchasing decisions. In 1997, the Federal Acquisition Regulation (FAR), which provides broad purchasing guidance to federal employees, was amended to support federal procurement of green products and services. In addition, executive agencies, under Executive Order 13101, have been directed to identify and give preference to the purchase of products and services that pose fewer environmental burdens.



# Contacts and Resources

## Green Seal

[www.greenseal.org](http://www.greenseal.org)

Green Seal is the independent, nonprofit organization dedicated to protecting the environment by promoting the manufacture and sale of environmentally responsible consumer products. It sets environmental standards and awards a Green Seal of Approval to products that cause less harm to the environment than other similar products. The *Choose Green Report on Rigid Quick Serve Food Packaging* provides a list of recommended products. Green Seal also has an Environmental Standard for Food Service Packaging, GS-35, that has been publicly reviewed. This standard covers recycled content, bleaching, volume-to-weight criteria, compostability, toxics, grease, moisture, and compressibility requirements. Green Seal also is preparing a standard for disposable plates and bowls. Both the report and the standard are available on Green Seal's Web site.

## EarthShell

[www.earthshell.com](http://www.earthshell.com)

EarthShell packaging was used in the DOI pilot project mentioned previously. EarthShell now makes environmentally preferable plates, bowls, and cups, as well as clamshells.

Other companies producing and marketing disposable, biodegradable, compostable, and naturally derived food packaging continue to surface. A number of them are based in other countries. As we learn more about the companies and their products, have a chance to assess their environmental claims, or even have the opportunity to experiment with their use through a pilot project, we will share our experiences and what we learned. Keep an eye out for a food packaging-related case study that EPA is developing.

## Composting Council

[www.compostingcouncil.org](http://www.compostingcouncil.org)

The Composting Council's Web site lists companies that deal with all types of items related to composting, including food packaging.

## The International Biodegradable Products Institute

[www.bpiworld.org/news.html](http://www.bpiworld.org/news.html)

The institute's Web site contains news articles on compostable food packaging.





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